To: Director and Laboratory Staff

From: Survey and Appraisal

Subject: SURVEY NOTES

# FARM SITUATION AND GENERAL BUSINESS ACTIVITY

APRIL FARM INCOME LESS THAN LAST YEAR

Cash receipts from farm marketing totaled \$1.7 billion during April of this year, slightly below the March level, and 4 percent less than receipts in April of last year. Farmers' receipts from livestock and livestock products were \$1.2 billion, a little less than in March and 5 percent below April 1949. Cash receipts from crops amounted to \$0.5 billion, practically the same as in March, but a little lower than April a year ago.

Farm Income Situation, BAE, March 1950, p. 1.

# COTTON LINT

MARCH COTTON CONSUMPTION, SPINDLE ACTIVITY DOWN; SPINDLE HOURS UP

Cotton consumption dropped from 37,592 bales per working day during February to 35,929 bales during March, but still was substantially above March of 1949. Stocks amounted to 10.2 million bales at the end of March, as compared to 11.1 million bales in February and 8.2 million bales in March 1949. Spindle activity declined; active spindle hours increased during March.

Table 1.- Cotton consumption and stocks, and spindle hours in cotton mills

		:February: : 1950 3/:		
Consumption, average per working day, bales 1/On hand, 1,000 bales	: 10,184	: 11,055 :	9.1:	8,243

<sup>1/</sup> Number of working days per month: March 1949, 23 days (calendar month);
January 1950, 19-1/2 days (4 weeks); February 1950, 19-2/3 days (4 weeks);
and March 1950, 25 days (5 weeks).

From Bureau of the Census reports.

<sup>2/</sup> Based on 5-week period.
3/ Based on 4-week period.

<sup>4/</sup> Based on calendar month.

<sup>5/</sup> Includes activity on fibers other than cotton totaling 0.3 to 0.6 billion spindle hours for each period shown.

### RAW COTTON PRICE RISES; CLOTH PRICES AND MILL MARGINS DECLINE

The delivered-at-mill price of Middling 15/16-inch cotton on April 13 was 137 points higher than the January quotation, while the equivalent rayon staple prices remained the same. The average price for cloth from one pound of cotton and mill margins were 4/5 cent below the March figures but considerably above the March 1949 figures. April prices of 37" 4.00 yard sheeting and 36" 2.35 yard osnaburg were down 1/2 cent from the February peak prices, while printcloth (38-1/2" 5.35 yard) sold 1-3/4 cents higher.

Table 2.- Prices of raw cotton, rayon staple and cotton fabrics, and cotton mill margins in cents

Application - Made to an Made to the Manual State of Companies Orders on State on St	:Apr. 13:	Mar.:	Feb.	: Jan. : Mar.
	: 1950 :	1950:	1950	: 1950 : 1949
Cotton, Middling 15/16"	:			
delivered at mills, lb	: 34.13 :	33.52:	33.57	: 32.76 : 34.38
Rayon, viscose staple	:	:		:
Rayon, viscose staple equivalent price 1/, lb	: 31.15 :	31.15:	31.15	: 31.15 : 32.93
Rayon, acetate staple	: :			:
equivalent price 1/, 1b				
Cotton fabrics, average 17 constructions		: 00 74		
Price for cloth from 1 lb. of cotton 2/				: 69.07 : 63.70
Mill margins 3/				: 37.90 : 31.35
Sheeting, 37" 4.00, yd. 4/				: 16 75 : 16 50
Osnaburg, 36" 2.35, yd. 5/				
Printcloth, 38-1/2" 5.35, yd. 4/	: 17.00	15.25	15.25	· 15.25 · 14.75
111110010011, 00-1/2 0.00, yat 1/		10,00	10.00	10000 1110
1/ Cost to mill of same amount of usable	fiber as	supplied	by one	pound of cotton

1/ Cost to mill of same amount of usable fiber as supplied by one pound of cotton (rayon price x .89).

2/ Price of approximate quantity of cloth obtainable from a pound of cotton with adjustments for saleable waste. (Cotton Branch, P.M.A.).

3/ Difference between cloth prices and price (10-market average) of cotton assumed to be used in each kind of cloth (Cotton Branch, P.M.A.).

4/ From Daily Mill Stock Reporter.

5/ From Journal of Commerce.

BAE ESTIMATES SUPPLY, CONSUMPTION, EXPORTS, AND CARRY-OVER FOR 1949-50 SEASON

According to the Bureau of Agricultural Economics, the 1949-50 supply of cotton in the United States is now estimated at 21.4 million bales, 20 percent higher than last season, but only slightly higher than the 1955-39 average. Based on the high rate of consumption so far during 1949-50, the use of cotton should be about 8.5 million bales for the year, compared with 7.8 million bales during 1948-49. Prospective exports for 1949-50 are 5-1/4 million bales, with 1948-49 exports totaling 4-3/4 million bales. Carry-over on August 1, 1950 is likely to be about 7.5 million bales, of which two-thirds will be in CCC stocks.

The Cotton Situation, BAE, January-March 1950, p. 3.

1949-50 COTTON EXPORTS EXPECTED TO BE BETWEEN 5.2 and 5.5 MILLION BALES

The Office of Foreign Agricultural Relations expects the 1949-50 exports of cotton to be between 5.2 and 5.5 million bales. Among factors influencing continued heavy buying of U. S. cotton are: (1) prices of foreign cotton, except in Mexico, are higher than for similar qualities of U. S. cotton, (2) near-exhaustion

in foreign producing countries of old-crop stocks of American-type cotton, (3) foreign stocks are lower, and (4) ECA countries are buying more cotton because their food production has improved to the extent that they can reduce food imports.

Journal of Commerce, April 10, 1950, p. 4 A.

### COTTON . PRODUCTS

AUTOMOBILE INDUSTRY: FISHER BODY USES 78 MILLION POUNDS OF COTTON IN 1949

According to the Fisher Body Division of General Motors, they used 78 million pounds of cotton in the manufacture of automobile bodies during 1949. Linear measurements of cotton fabrics used during 1949 were: sheeting, 3,108,000 yards; osnaburgs, 1,684,000 yards; coated fabrics, 2,700,000 yards; truck lining, 1,293,000 yards; and narrow laces such as wind cords, rope cords, and decorative strips, 23,590,000 yards.

In an average year, Fisher Body Works consumes 115,000 bales of staple cotton and 74,000 bales of linters, which are 1 percent and 6-1/2 percent, respectively, of the total cotton and linters production.

It was found that the 50 pounds of cotton and linters used in the average automobile consisted of 28 pounds of staple cotton and 22 pounds of cotton linters. These figures do not include a considerable amount of cotton used in other parts of a car in the form of electrical insulation and tire cord.

Daily News Record, March 30, 1950, p. 20.

BAGS: NEW COTTON FLOUR BAGS CHEAPEST TO USE IN MAY 1950

The net cost of using new cotton flour bags was \$85.00 per thousand on May 15th, which was \$4.15 per thousand cheaper than paper bags and \$52.65 cheaper than burlap bags. Prices of new cotton and burlap bags declined from March to April; the paper bag price was unchanged.

Table 3.- Mid-month prices of 100-pound flour bags

(Dol1	(Dollars per thousand)									
Supposed Sup	April	: March	February	: April						
	1950	: 1950 :	1950	: 1949						
Prices, new, St. Louis 1/ :	1.	:		* 11 11 11 11 11						
Cotton	230.00	: 238.75: :	239.00	: 233.75						
Burlap	237.65	: 243.65 :	243.65	: 204.40						
Paper:	94.15	: 94.15 :	94.15	: 108.75						
Prices, second-hand, New York :		: . :		* 1 + 2 .						
Cotton, once used 2/:	145.00	: 150.00 :	155.00	: 130.00						
Cotton, bakery run 3/:	100.00	: 105.00 :	100.00	: ,105.00						
Burlap, once used 27	100.00	: 100.00 :	.105.00	: 110.00						
Burlap, bakery run 3/	110.00	: 110.00 :	105.00	: 100.00						
Paper, bakery run 37	5.00	: 5.00 :	5.00	: 10.00						
Difference	: (	:: Time the L:	A L CONT							
Cotton, new minus once used:	85.00	: 88.75 :	84.00	: 103.75						
Cotton; new minus bakery run:	130.00	: 133.75 :	129.00	: 128.75						
Burlap, new minus once used:	137.65	: 143.65 :	138.65	: 94.40						
Burlap, new minus bakery run:	127.65	: 133.65 :	138.65	: 104.40						
Paper, new minus bakery run:	89.15	: 89.15	89.15	: 98.75						

<sup>1/</sup> Cotton, 37" 4.00 yd. sheeting cut 43" unprinted; burlap, 36" 10 oz. cut 43" unprinted; paper, 18 x 4-1/2 x 36-3/4" unprinted; all 1. c. 1. shipments. No allowance made for quantity or cash discounts. From a large bag manufacturer.

2/ From a large second-hand bag dealer.
3/ From Daily Mill Stock Reporter.

FLAGS: EXECUTIVE PREDICTS COTTON WILL REMAIN DOMINANT FIBER USED IN FLAGS IN THE FUTURE

Digby W. Chandler, vice president of Annin & Co., world's largest producer of flags, banners, and pennants, believes that cotton will always retain its dominent role as a flag material, because the cotton flag is strong, the stripes are white, and it is the perfect material for fast dyeing. In addition, its price is one-half that of wool and one-third that of the newly developed nylon and wool combination.

He further states that Annin & Co. produces 25 million American flags each year, more than half of which are cotton, requiring about 3,500,000 yards of all types of cotton material. The entire flag industry consumed 10 million yards annually.

Better flags are made of 2-ply 2.50 weight cotton bunting, while less expensive flags use 2.85 weight sheeting, and small flags are printed on print cloth. Materials for better flags are dyed in fast colors, suitable for flag making, and then are sewn by machine. The mills must use the finest quality cotton in order to maintain the flag's brilliant, strong colors.

Daily News Record, March 30, 1950, p. 35.

SHOES: IMPROVED FABRICS FOR SHOE UPPERS COULD EXPAND USE OF COTTON FABRIC; COTTON CONSUMPTION IN SHOES GIVEN FOR 1947

John H. Patterson, Economist for the National Shoe Manufacturers Association, states that cotton has not been used extensively for shoe uppers, although this is a field in which there is some possibility of increasing consumption if fabrics, weaves, and patterns can be developed which are comfortable, have good wearing qualities, and are styled well. In addition to these qualities, a satisfactory upper material must clean easily, hold its shape without being stiff or bulky, and have good fast colors. The increasing popularity of casual shoes has encouraged the use of new and different materials in uppers, and this provides an opportunity for the cotton industry to expand its market. A few prints are already used, as well as some denims; cotton gabardines have been used, but they generally have been confined to low-priced shoes.

He further states that of the cotton used for shoes, 60 percent is used for linings, 15 percent in reinforcement for shoe bottoms, 12 percent in shoe laces, and 13 percent for other parts of shoes.

Daily News Record, March 30, 1950, p. 33.

The National Cotton Council estimated that 119 thousand bales of cotton were used in shoes in 1947, 88 percent being used in leather and fabric shoes and 12 percent in rubber shoes. Cotton consumption in leather and fabric shoes were 62 thousand bales in linings; 16 thousand bales in uppers; 15 thousand bales in shoe bottoms; and 12 thousand bales in laces. Cf cotton used in rubber shoes, tennis shoes accounted for 8 thousand bales and boots, pacs, and gaiters for 6 thousand bales.

"Cotton Counts its Customers,"
National Cotton Council, December 1949, p. 29.

TIRE FABRICS: PRICES UNCHANGED

Open market tire fabric prices remained unchanged from March 1, 1950, to April 1, 1950.

Table 4.- Prices of cotton and rayon tire fabric,
April 1 and March 1, 1950

Fabric	: Cond	Fabric weig			er pound :		
140110	. Cord	per sq.yd.	1/:	April 1	March 1:	: April l	: March 1
	:	Pound	:	Cents :	Cents ::	Cents	: Cents
Passenger car tires	: :		:	:	:		:
Cotton fabric	:12/4/2:	91	:	64.5	64.5 ::	58.7	: 58.7
Rayon fabric	:1650/2:	.79	: 6	61.5-61.8:	61.5-61.8:	48.6-48.8	:48.6-48.8
Truck tires	: :		:				:
Rayon fabric	:1100/2:	. 62		64.0	64.0:	39.7	: 39.7
Rayon fabric	:1650/2:	.78	:	61.5	61.5:	: 48.0	: 48.0
Rayon fabric	:2200/2:	.82	. :	60.5	60.5:	49.6	: 49.6
	:		:		:		:

<sup>1/</sup> These are typical fabric weights and vary somewhat for different tire manufacturers.

Based on reports from independent rubber companies.

### COMPETITIVE PRODUCTS

CASEIN FIBER: U. S. LABORATORY MAKES FILAMENT YARNS

The Eastern Regional Research Laboratory of Philadelphia has made continuous filament casein yarn for the first time and found it possesses potential industrial value. Prior to this development, casein fibers were made only in staple form. The fiber has rubber-like elasticity, is warm, and smooth to the touch. Commercial application of this process, which does not require use of inflamable organic solvents, is now being considered by at least one company.

Daily News Record, March 17, 1950, p. 24.

#### NYLON: 24 MILLION POUNDS USED IN WOMEN'S HOSIERY

According to R. A. Ramsdell, manager of the Du Pont Co.'s Nylon Division, 24 million pounds of continuous nylon filament yarn was sold to the domestic ladies hosiery industry in 1949. Women's hosiery, he stated, was the first big market for nylon and one where consumer requirements are being substantially met. Disposal of the balance of Du Pont's filament yarn production was as follows: All other types of knitting, 25 percent; broadweaving, 49 percent; industrial and military uses, including tire cord, 22 percent; miscellaneous applications, 4 percent.

The staple production, he declared, went largely into sweater, half-hose and broadweaving, including automobile fabrics.

Journal of Commerce, March 24, 1950, p. 12.

#### 11 PERLON: NEW U.S. CHEMICAL BELIEVED BASIC TO MAKING PERLON U

Butanediol, first production of which was disclosed recently to have started in this country, is a starting material for the production of Perlon D, it is learned in the trade.

Disclosure that several new synthetic fibers are under development as a result of production in this country of butanediol from acetylene came from Dr. H. B. Hass, research and development manager of General Aniline & Film Corp.

This brings up the possibility that a type of Perlon may in time be manufactured in this country. Some reports on Perlon from abroad have indicated that it is similar in properties to nylon, but that an advantage in tactile may be obtainable with some types of Perlon. Perlon U is a polyurethane. The other types of Perlon are T, which is a 66 polymer corresponding to nylon as produced in the United States, and L, which is a polymer of amino-caprolactan.

Daily News Record, March 17, 1950, p. 24.

RAYON: CELANESE PLANT TO INCREASE STAPLE FIBER PRODUCTION CAPACITY BY 200,000 POUNDS PER WEEK

The Celanese Corp's plans at Narrows, Va., will expand its productive capacity of staple fiber by 200,000 pounds per week. The addition will not be completed for several months, but should be in operation this year.

Daily News Record, April 11, 1950, p. 48.

RAYON: INDUSTRIAL RAYON TO INCREASE TIRE CORD PRODUCTION BY 3 MILLION POUNDS

President Hayden B. Kline has announced that the Industrial Rayon Co. plans to increase their tire rayon capacity at Painesville, Ohio, by 3 million pounds per year. The program, which will be completed early this summer, will increase the company's aggregate capacity for all types of rayon to 88 million pounds annually.

Journal of Commerce, March 30, 1950, p. 12.

RAYON: SYNTHETIC FIBERS SHOW GAIN IN 1948 IN PRODUCTIVITY

According to a report prepared by Bernard Michael and Mary L. Kelly of the U. S. Labor Department, the number of man-hours expended per unit of production of rayon and synthetic fibers reached a new low in 1948, dropping almost 12 percent from the 1947 rate. At the same time that productivity was increasing, production went up 18 percent between 1947 and 1948, achieved with less than a 4 percent increase in employment and man-hours worked. Since 1939, an increase of more than 200 percent in production was accomplished with less than a 30 percent increase in man-hours. Man-hours per unit have declined steadily since 1939. With 1939 being 100 of this index, man-hours per unit of output dropped to 88.2 in 1940; 78.8 in 1941; 66.4 in 1942, edged back up to 67.2 in 1943, but dropped again to 63.1 in 1944; 58.7 in 1945; 54.1 in 1946; 48.2 in 1947; and 42.3 in 1948.

Daily News Record, March 27, 1950, p. 22.

RAYON: NEW MACHINE CLAIMED TO BE SUPERIOR TO CONVENTIONAL POT SPINNING

Harry A. Kuljian, a Philadelphia engineer, claims to have developed a continuous spinning and processing machine that can replace the "pot spinning" method. This new method cuts the time of processing from 4 to 5 days on the old conventional system to 3-1/2 minutes on the Kuljian system.

Advantages claimed on the new system over the conventional rayon processing equipment are: superior quality yarn; requires less capital investment; requires less production costs; produces all types of commercial yarn; greater production per spindle; requires less plant space; requires less time for installation; and greater efficiency.

Relative to production per spindle, it is claimed that the machine would produce 6 pounds of 150 denier yarn and 48 pounds of 1150 denier yarn per working day.

Journal of Commerce, April 7, 1950, p. 9.

RAYON: GARMENT MAKERS TO INCREASE USE OF RAYON FABRIC IN 1950

According to Jules Goldstein, executive director for various organizations which poll their membership for responses which may guide mill policies, garment manufacturers plan to increase their use of rayon fabrics in 1950, curtailing their use of cotton and wool fabrics. Results of a recent survey are found in table 5.

Table 5.- Cotton, rayon, and wool fabric used by specified garment makers, during 1949, and their planned buying for 1950

	Cotton	: Rayon	Wool
	Percent	: Percent	Percent
HEAVY OUTERWEAR		:	
1949, fabric use	38.5	32.6	28.9
1950, planned buying	33.5	40.3	26.2
1949, fabric use	20.7	: 28.3	51.0
1950, planned buying:	19.2	: 30.9	49.9
WORK CLOTHES :		:	
1949, fabric use	73.1	: 9.9	17.0
1950, planned buying:	71.0	: 12.9	16.1
BOY'S APPAREL :		:	
1949, fabric use:	73.5	: 13.0	13.5
1950, planned buying	66.0	: 21.5	12.5

Apparel Manufacturer, February 1950, p. 57.

VICARA: PRODUCTION EXPECTED TO BE 20 MILLION POUNDS ANNUALLY FOR NEXT THREE YEARS

According to John H. Karrh, sales manager of the Virginia-Carolina's fiber division, the production of Vicara is expected to be 20 million pounds annually for the next three years.

Journal of Commerce, March 30, 1950, p. 12.

### PROTEIN TEXTILES TREATED TO REDUCE FELTING, SHRINKING

Patent No. 2,499,653—a process for treating protein-containing textile materials to reduce felting and shrinking—has been granted to Edward L. Kropa, Old Greenwich, Conn., and Arthur Nyquist, Cos Cob, Conn., and assigned to the American Cyanamid Co., N. Y. The process consists of treating the material with a composition of a reactive product of a polymerizable mixture including from 2 to 20 percent of maleic anhydride and from 98 to 80 percent of a lower alkyl ester of acrylic acid, and heating the resulting treated material to cure the polymerization product.

Daily News Record, March 22, 1950, p. 26.

### HOSIERY STATISTICS BY FIBER CONTENT, GIVEN

From 1943 to 1949, the production of women's full-fashioned hosiery, men's slack socks, and men's athletic socks increased, while men's and women's seamless hosiery production and bundle goods decreased considerably. Since 1943, the use of nylon for women's hosiery has risen tremendously, at the expense of silk, rayon, cotton, and wool. From 1945 to 1949 the production of men's silk, rayon, cotton, and wool hosiery declined, with nylon hosiery production increasing.

Table 6.- Production of hosiery, by fiber content, United States, 1943, 1946, 1949

and the second s							
	Total	Silk	Nylon	Rayon	Cotton	Wool	Other 1/
			1,00	00 dozen	pairs	1	-
WOMEN'S HOSIERY :			:		:		:. (
Full-fashioned:	; :		: :	:			:
1943		12		: 27,126		-	: 9,042
1946			: 23,319				: 7,480
1949:		185	: 44,268	: 51	: 134 :	31753	: 590
Women's seamless:			•				:
1943			: ' -	4,064			: 4,657
1946	,		: 2,500				: 1,289
1949	7,695 :	. 8	3,595	1,339	2,231	77	: 445
IMPLIED HOUTERS			100			oras lo lat	
MEN'S HOSIERY :							
Seamless half hose:		7.0		30 750	10 755	7 000	
1943		36	270	,			
1946			230 484	-	: 13,182		
1949	14,430	8	404	4,375	7,557	2,006	
1943	15,724					10 3-0-3	
1946			140	6,491	12,007	3,207	
1949	26,507		2,280	,	16,457		
Bundle goods		*	. ~,~~~	, 0,700	,	1,010	
1943		-	_	_	5,693	3,083	: -
1946			_	1000	5,216		
1949	6,952			-	5,310		
Athletic socks :	:			Stanielie	:		
1943	1,164 :	-		-	316	848	: 70 200
1946		-	: - :	1-1-1-	668		:
1949:	2,108:	-	-	-	277 :	,	: 4
						THE TANK	: 1

<sup>1/</sup> Includes hosiery with silk or nylon leg, with cotton or rayon welt; rayon leg with cotton welt; mixtures; and women's knee-length seamless hosiery and misses and women's ribbed hose.

Hosiery Statistics, 1949, National Assn. of Hosiery Manufacturers, p. 28.

#### OTHER SYNTHETIC FIBERS: CONSUMPTION UP IN 1949

According to the Rayon Organon, synthetic fibers other than rayon totaled 91 million pounds in 1949, compared with 75 million pounds in 1948, 50 million pounds in 1947. and 5 million pounds in 1940 (table 7).

Table 7.- Consumption of synthetic fibers other than rayon 1/,
United States, 1940-49, in millions of pounds

Year Year	Quantity		Year	Quantity
		::		*
1940 :	5	::	1945	: 52
1941 :	13	::	1946	: 56
1942 :	26	::	1947	: 50
1943	39	:: 4	1948	: 75
1944	49	11277	1949	: 91
as book may a persolate		::		

1/ Producers' domestic shipments (for textile purposes) of yarn plus staple for glass fiber, Orlon, nylon, Vinyon and dynel, Saran, Aralac, and Vicara. Includes producers' domestic shipments of rayon horsehair and straw. Shipments before 1940 were inconsequential. Based on data from producers, with a small part estimated by the Rayon Organon.

Rayon Organon, March 1950, p. 40.

WOOL: APPAREL WOOL USE FOR FEBRUARY UP 26 PERCENT OVER SAME MONTH LAST YEAR.

The average weekly consumption of all types of wool on a scoured basis was 12.6 million pounds during February of this year, compared with 11.8 million pounds during January 1950 and 10.8 million pounds during February 1949. Use of apparel wool was 34.8 million pounds during the four-week period of February 1950. This is 10 percent and 26 percent higher, respectively, than January 1950 and February 1949. Carpet wool use was about 15.6 million.pounds for each of the four-week periods.

Table 8.- Consumption of wool of the sheep, scoured basis, United States, for the specified periods.

(Million pounds)									
- BART mercub strop :	Ap	Apparel class Woolen: Worsted: system: System:				class, f	oreign	::	Canad
Smoother and England	Woolen	:Worsted:	Total	::	Woolen	:Worsted:	Total	::	Total
pa setadamikupunin amadat	system	: system :	Tobal	::	system	: system :	10000	::	TOUAL
						: :		::	
1948 1/:	165.8	: 319.4 :	485.2	::	201.1	: 6.8 :	207.9	::	693.1
1949 1/	139.2	: 204.0 :	343.2	::	158.6	: 3.2 :	161.8	::	505.0
1949, February 2/:	9.8	: 17.9 :	27.7	::	15.3	: .4 :	15.7	::	43.4
1950, January 27:							15.6	::	47.2
1950, February 2/:	10.8	: 24.0 :	34.8	::	15.2	: .4 :	15.6	::	50.4
the second of Regal :	GO LOVE IN	:	10 00	::		:		::	

1/ Total for 52 weeks. 2/ Total for 4 weeks.

Facts for Industry "Wool Manufactures," Bureau of the Census.

# TEXTILE RESEARCH AND EDUCATION

# SPINNING TEST LABORATORY IS PLANNED AT UNIVERSITY OF TENNESSEE

The University of Tennessee will establish the first miniature spinning test laboratory in this country during the summer of this year. They expect to conduct tests on this Fall's crop. After the laboratory is in operation, the researchers will process progeny row sample from raw cotton into yarn. Individual samples tested will range from 4 to 16 ounces. By performing the spinning test on the small amount of cotton available from a progeny row, up to three years can be saved in determining the value of the strain. Spinning of small-scale samples, although never successfully done in the United States, is being done in England and Egypt. Dr. Kenneth L. Hertel will be in charge of the laboratory.

Southern Textile News, March 18, 1950, p. 1.

### NEW GAS-FADING TEST DEVICE

According to Herbert G. Scull of A. M. Tenney Associates, Chairman of the sub-committee on atmospheric fading, American Association of Textile Chemists and Colorists, Mr. James Greer of Burlington Mills Corp. has developed a new device for making tests on atmospheric fading. It was reported that gas-fading tests can be accomplished with the new device in as little as three or four minutes, although a ten minute test period is recommended. This compares with six to sixteen hours for the present test method. The results of this new test are said to have been found to correlate with the present method of the association.

American Wool and Cotton Reporter, March 2, 1950, p. 33.

# OILSEEDS AND RELATEDD PRODUCTS

# PRODUCTION OF FATS AND CILS TO CONTINUE LARGE IN 1950

Although cottonseed oil production will be smaller, production of lard, butter, and soybean oil probably will be larger. Output of inedible tallow and grease may also be up from 1949 levels. In the drying oil field, while the incoming flow of imported oils may continue low, the availability of linseed oil and soybean oil should aid in meeting the requirements of the drying oil trades.

Industry Report, Fats and Oils, March 1950, p. 3.

# COPRA: U. S. IMPORTS SHOW DECREASE

United States imports of copra and coconut oil in terms of copra during 1949 amounted to 519,540 short tons, a decrease of 3 percent from 1948 and 25 percent from 1947, but an increase of 4 percent over the prewar average. Approximately 96 percent of the 1949 imports originated in the Republic of the Phillipines.

Copra imports of 428,230 tons, though considerably less than in the 2 previous years, exceeded the prewar average by 86 percent. Coconut oil imports of 57,525 tons, however, represented only one-third of the average 1935-39 tonnage, despite the upward trend of oil imports since 1946.

Foreign Crops and Markets, April 10, 1949, p. 329.

# FLAXSEED: LOWER 1950 PRICE SUPPORT ANNOUNCED

The Agriculture Department announced a support price of \$2.82 a bushel for 1950 crop, No. 1 flaxseed at Minneapolis and Duluth, Minn., Portland, Oregon, and Chicago. This compares with \$3.99 for the 1949 crop and \$6 for the 1948 crop. The 1950 support rates at other terminal markets include: Los Angeles and San Francisco, \$2.97; Fredonia, Kansas, \$2.62, and Corpus Christi and Houston, Texas,

\$2.57. Unlike the previous years, the farmer will be required to assume the cost of storage the first year flaxseed is held under the support program. Support rates for No. 2 flaxseed will be 5 cents a bushel less than No. 1 grade. The program will be operated through loans and purchase agreements for all areas except 42 designated Texas counties where support will be through direct purchases only. This policy also was followed last year. For any given county, the support rate will be the price at the applicable terminal less the cost of freight, transportation tax, and in-and-out county elevator charges. Journal of Commerce, April 11, 1950, p. 12.

FLAXSEED: CANADIAN FARTERS ASKED TO INCREASE OILSEED ACREAGE

At its first meeting in Winnipeg on February 23, members of Canada's newly formed Canadian Barley and Oilseed Conference were told that a flaxseed campaign is a definite necessity for the future welfare of the industry. At the close of the session a resolution was adopted recommending the planting of 750 thousand to 1 million acres to flaxseed this spring.

In discussing market prospects, it was pointed out that there was a good outlet for all oilseeds in Canada and that 200 million pounds of edible oils were manufactured in 1949. Farmers are being encouraged to improve the quality of their pilseed crops and to grow additional pilseeds. In addition to flaxseed, Canada is now producing soybeans, sunflower seed and rapeseed.

Foreign Crops and Markets, April 3, 1950, p. 303.

MOST VEGETABLE OIL AND MEAL PRICES HIGHER

Prices of most edible vegetable oils increased, with prices of crude cottonseed and soybean oils advancing about 1.5 cents from February to an average of about 13 cents per pound in March. Prices of most vegetable oils on April 17 ranged somewhat higher than the March average.

Oilseed meal prices in most cases advanced moderately from February and averaged higher in mid-April and March this year than last.

Table 9.- Prices of vegetable oils and meals

Product :	Apr. 1950	:Mar	. 1950	11/:	Feb. 1950	:	Apr. 1949
			Cents	per	pound		
OIIS 1/	Apr. 17	*		:		:	
Cottonseed oil:	13.5	:	13.2	:	11.6	:	11.0
Peanut oil	14.8	:	15.0	:	14.0	:	12.2
Soybean oil	13.1	:	12.8		11.4	:	10.5
Corn oil	14.0	:	13.8	:	13.1		14.4
Coconut oil 2/:	18.5	:	17.7	:	17.1	:	17.2
Linseed oil 3/:	17.9	:	18.5	:	18.6	:	28.8
Tung oil 4/	27.5	:	27.5	:	27.9	:	20.8
*			Dolla	rs n	er ton		
MEALS 5/	April 15						
Cottonseed meal 6/:	64.00	:	60.40	:	56.75	:	56.50
Peanut meal 7/	67.50	:	63.80	:	59.75		60.40
Soybean meal 8/:	66.00	* .	69.65	:	65.05		70.55
Coconut meal 9/:	64.00	***	60.00	:	58.63	:	59.25
Linseed meal 10/	68.00		70.00	:	68.50	:	63.60

Crude, tanks, f.o.b. mills except as noted. From Oil, Paint and Drug Reporter (daily quotations) and from Fats and Oils Situation, BAE (monthly quotations). 2/ Crude, tanks, carlots, Pacific Coast. Three cents added to allow for tax on first domestic processing.

<sup>3/</sup> Raw, drums, carlots, New York.
4/ Drums, carlots, New York.
5/ Bagged carlots, as given in Feedstuffs (daily quotations) and Feed Situation,
BAE (monthly quotations).

<sup>6/41</sup> percent protein, Memphis.
7/45 percent protein, S. E. Mills.
8/41 percent protein, Chicago. 9/ 19 percent protein, Los Angeles. 10/34 percent protein, Minneapolis. 11/ Preliminary

### PALM OIL: 'U. S: IMPORTS FAR BELOW PREWAR

United States imports of palm oil continue to lag far below prewar. During 1949, 41,170 tons, or only one-fourth the 1935-39 average of 160,741 tons were imported. Over 29,600 tons or 72 percent of the total came from the Belgian Congo. For the first time since before the war a sizeable quantity—11,399 tons—came from Indonesia, the source of approximately 75 percent of U. 3. imports of palm oil during 1935-39.

Foreign Crops and Markets, April 10, 1950,p.332

#### DOMESTIC CONSUMPTION OF SHELLED PEANUTS 43 PERCENT ABOVE LAST SEASON

Shelled peanuts in the amount of 613 million pounds have been reported consumed this season through March 31. This compares with 427 million pounds used during the same period last season. This sharp increase is due primarily to heavier crushing of shelled peanuts this season. The reported use of shelled edibles, however, amounted to 307 million pounds this season to date, compared with 292 million pounds to March 31 last season.

Table 10.- Shelled peanuts (raw basis) reported used domestically in primary products

Day and a large	Sept. 1	- Mar. 31	::Season, Sept	t. 1 - Aug. 31
Reported use	1949-50	: 1948-49	:: 1948-49	: 1947-48
displacement scharges deligibles deligibles companies deligibles d	1,000	: 1,000	:: 1,000	: 1,000
:	pounds	: pounds	:: pounds	: pounds
:		:	* *	: ;
TOTAL, all grades:	612,541	: <u>427,297</u>	:: 710,596	: 627,252
Edible grades, total:	307,106	: 292,227	:: 484,431	: 493,266
Peanut candy 1/:	80,681	: 65,642	107,181	: 119,814
Salted peanuts	71,367	: 73,755	120,018	: 117,155
Peanut butter 2/	148,867	: 149,306	:: 250,184	250,858
Other products:	6,191	3,524	7,048	: 5,439
Crushed for oil, cake ::	n 4 e	:	* *	*
and meal 3/	305,435	: 135,070	:: 226,165	: 133,986
·		:	**	*

<sup>1/</sup> Includes peanut butter made by manufacturers for own use in candy. 2/ Excludes peanut butter made by manufacturers for own use in candy.

3/ Includes ungraded or straight run peanuts.

From: Peanut Stocks and Processing, BAE, April 18, 1950.

### RICE: U.S. EXPORTS DECLINE IN FEBRUARY

United States rice exports in February totaled 412,000 bags (100 pounds), a sharp drop below 1,872,000 bags in January, and the smallest since August 1949. Monthly exports during the preceding months of the current marketing season were (1,000 bags of milled rice): August, 404; September, 603; October, 1,367; November, 1,091; and December, 2,009.

-- Foreign Crops and Markets, April 10, 1950, p.326.

### TUNG NUTS: ARGENTINE HARVEST REPORTED SMALLER

Argentine producers expect the 1950 tung nut harvest to be smaller than the record crop of 1949 because of frost damage and drought conditions. The June 1950 harvest is forecast currently by the Trade at 45,000 short tons, compared with 65,000

tons of nuts last year. Assuming a yield of 16 percent, the oil equivalent of the current crop would be 7,000 tons compared with 10,500 tons last season.

Foreign Crops and harkets, April 10, 1950, p. 328.

The United States imported approximately 32,500 short tens of tung oil in 1949, which was less than half the record quantity received in 1948. The decrease was partly the result of difficulties in getting tung oil out of China. That country provides from 90 to 99 percent of U.S. imports, but supplied only 67 percent last year. More than one-fourth of the total originated in Argentina.

Foreign Crops and Markets, April 17, 1950, p. 368.

### NO TUNG NUTS FROM 1949 CROP TO BE OFFERED TO CCC

The Department of Agriculture announced April 10 that none of the 1,748 tons of tung nuts covered by purchase agreements under the 1949 price support program will be offered to Commodity Credit Corporation. All tung nuts under purchase agreement were either sold by producers in commercial channels of trade or toll-crushed into oil for the producer's account. March 31 was the last day on which producers could notify the Production and Marketing Administration of their intentions to deliver tung nuts to CCC.

Current market prices for tung oil are above the support price of 24.1 cents per pound. If the market price continued near its present level, it is anticipated that most, if not all, of the 11,462,509 pounds of tung oil new under purchase agreement will be sold by producers through regular trade channels.

Oil, Paint and Drug, Reporter, April 17,1950,p.3.

# BUCKEYE CONVERTS MEMPHIS PLANT TO SOLVENT PROCESS ,....

Buckeye Cotton Oil Co. has announced that it is starting immediately to convert its Binghampton soybean crushing units at Membhis, Tenn., from the present hydraulic presses and expellers to a chemical solvent process. Conversion to the new process will give the Buckeye organization over 200,000 tens of solvent crushing capacity at Memphis, two-thirds of which can be used on either cotton-seed or soybeans, according to officials. Construction will start immediately and will be handled by company engineers and construction personnel.

The Cotton Gin and Oil Mill Press, March 4, 1950, p.17.

FACTORY CONSUMPTION OF SECONDARY ANIMAL AND VEGETABLE FATS AND OILS INCREASES IN 1944-48 PERIOD

According to the Industry Division of the Bureau of the Census, factory consumption of secondary animal and vegetable fats and oils in textiles, metal working and treatment, candles, leather and a number of other industrial products decreased considerably during the period of 1944-48 inclusive, although factory consumption of these products as a whole increased over 35 percent in the same period.

Fats and oils covered in the report include stearin, both vegetable and animal, grease and lard oil, tallow oil, vegetable, fish, and animal foots oil, tall oil, fish oil, red oil or oleic acid, stearic acid, etc. By industries, consumption of these products are shown in table 11.

Table 11.- Factory consumption of secondary animal and vegetable fats and oils in miscellaneous products, by type of product, 1948 and 1944

	Quant	ity	used	::	Percent	age	of total
	1948	:	1944	::	1948	:	1944
	1,000	:	1,000	::		:	
	pounds	:	pounds	::		•	
; ,	*	:		:::		: :	
TOTAL	: 180,618	:	133,311	.:7 4	100.0	:	100.0
Rubber	31,085	:	18,980	::	17.3	:	14.2
Miscellaneous industrial products	27,713	:	16,221	::	15.4	:	12.2
Intermediate preparation		:	5,765	::	12.6	:	4.3
Textiles	00 004	:	21,593	::	11.6	:	16.2
Core oil	: 19,214	:	6,701	::	10.6	:	5.0
Metal working and treatment		:	26,640	::	9.5	:	20.0
Detergents			3,356	::	5.7		2.5
Resins		:	3,671	: :	4.8	:	2.8
Others	4,603	:	4,337	::	2.4	:	3.•3
Candles	4 3 5 5	:	8,246	::	2.3	*·,	6.2
Protective coating		:	3,798	::	2.1		2.8
Leather		:	5,186	::	2.0	:	3.9
Toilet articles		:	3,283	::	1.3	:	2.5
Pharmaceutical	•	:	1,892	::	1.3	.:	1.4
Hydraulic brake fluid, linings	:			::		:	
and packings	: 728	:	59	::	.4	:	1/
. Tin and terne		:	734	::	.4	:	-6
Disinfectant	: 404	:	1,910		.2	:	1.4
Glue and adhesives		:	279	::	.1	:	.2
Insulation		:	660	::	1/	:	5
	:	:		::	_	:	

<sup>1/</sup> Less than .05 percent.

From Facts for Industry "Animal and Vegetable Fats and Oils," 1944-1948.

# LINTERS AND CELLULOSE

LINTERS CONSUMPTION AT RECORD HIGH IE VEL; PRICES CONTINUE TO ADVANCE

Production of linters at oil mills totaled 158,000 bales during February, compared with 193,000 bales in January and 159,000 in February a year ago. Total consumption of linters for the 5-week March period was 156,000 bales against 128,000 bales in the four preceding weeks and 134,000 for the month of March 1949.

Prices for grades 2, 4 and 6 continued to advance, and current prices are the highest in nearly 2 years:

Table 12.- Cotton linters: Production, consumption by industries, stocks and prices, United States, for specified months

	1950 1/ 1,000 bales 5/ 155.8 98.7 57.1	February 1950 2/ 1,000 bales 158.0 127.7 79.4 48.3 580.0	:	January 1950 2/ 1,000 bales 193.0 132.0 85.5 46.5 577.0	:	1,000 : bales : 203.0 :	March 1949 3/ 1,000 bales 144.0 134.1 83.9 50.2 682.0
Prices 8/: No. 2 grade, per lb No. 4 grade, per lb No. 6 grade, per lb	7.20	Cents 10.91 7.11 3.89		Cents 10.60 6.45 3.09		Cents 10.02 5.67- 2.26	8 1 1 5

1/ Based on 5-week period.

2/ Based on 4-week period.

3/ For calendar months.

4/ From Weekly Cotton Linters Review, PMA, Cotton Branch, USDA.

5/ Data not available.

6/ From Facts for Industry, "Cotton and Linters," Bureau of the Census.

7/ Total stocks in consumer establishments, public storage and warehouses, and mills. Stocks at end of the month. From Facts for Industry, "Cotton Linters," Bureau of the Census.

8/ Average of average weekly prices, Memphis, Dallas, and Atlanta. From Weekly Cotton Linters Review, PMA, Cotton Branch, USDA.

# PRICE OF PURIFIED LINTERS HIGHEST IN 19 MO THS; WOOD PULP UNCHANGED

A further increase in the price of purified cotton linters makes the March price of 11.35 cents per pound the highest since July 1948 and very substantially above all qualities of wood pulp. Recent increases in the price of chemical grade cotton linters evidently made necessary an increase in purified linters pulp.

Table 13.- Average annual price of purified linters and dissolving wood pulp, United States, for specified years and months

(Cents per pound) Wood pulp 2, Year : Standard : High-tenacity: Acetate & linters 1/: viscose grade: viscose grade: cupra grade 1946..... 9.50 5.60 5.85 6.15 16,30 7.03 7.44 1947....: 8.04 1948..... 11.25 7.93 8.44 9.20 1949....: 8.62 7.94 8.44 9.06 1949, December .....: 8.35 7.50 8.05 8.55 7.50 8.05 1950, January....: 9.35 : 8.55 1950, February ....: 7.50 10.50 8.05 8.55 1950, March....: 11.35 7.50 8.05 8.55

Weighted averages, 1946-48. On 7 percent moisture basis, f.o.b. pulp plant. Average freight to users is 0.5 cent per pound. Prices supplied by a producer. Average of monthly prices, 1946-48. Compiled from Rayon Organon and from letters to us from producer. Wood pulp prices are 10 percent moisture basis, f.o.b. domestic producing mill, full freight, and 3 percent transportation tax allowed, Dec. 1, 1947 on; freight equalized with that Atlantic or Gulf port carrying lowest backhaul rate to destination plus 3 percent of backhaul

charges, prior to Dec. 1.

#### DISSOLVING WOOD-PULP DATA-GIVEN

Domestic production, imports, exports, and quantities available for domestic consumption of dissolving wood pulp are given in table 14.

Table 14.- Dissolving wood pulp: Production, exports, imports, and quantities made available for consumption, United States, for specified years and months

			(Tons)		
y	lear	: Domestic : production :	1/: Imports 2/	Exports 2/	:Available for consumption 3/
1939		.: 4/	88,052	48,232	: 4/
1945		.: 4/	: 143,802	: 13,033	: 4/
	,,,,,,,,,,,,,		: 202,192	8,491	4/
1947		.: 324,927	: 248,606	: 10,389	: 563,144
			: 243,740	: 15,937	: 584,503
1949		.: 4/	: 154,348	: 25,928	4/
1949, I	December	31,884	: 16,061	: 1,901	: 46,044
1950, J	January	.: 37,350	: 14,245	342	: 51,253
1950, F	ebruary	.: 37,803	<u>4</u> /	4/	: 4/

- 1/ Sulphite, bleached, dissolving grades. From Facts for Industry, Pulp and Paper Manufacturers. Bureau of the Census.
- 2/ Sulphite, bleached, rayon and special chemical grades. Data from foreign commerce statistics of the United States, Bureau of the Census.
- 3/ Production plus imports, less exports.

4/ No data.

# MISCELLANEOUS PRODUCTS

FURFURAL USES WONDER PRODUCT OF FARM WASTE GIVEN

On a 45-acre tract of land, 10 miles from Memphis, Tenn., the Quaker Oats Chemical plant first started manufacturing furfural commercially in 1943. Today this plant produces many million pounds of the chemical annually.

Furfural is an eily chemical distilled from corncobs, cottonseed hulls, rice . hulls, and similar materials. This product adds to the value of American farm products, since it is made entirely from the waste products of crops. Large manufacturers now produce furfural at less than 10 cents a pound. Following are some of its many uses:

Oils - petroleum refining. More lubricating oil is refined by furfural than any other single solvent refining process.

Rubber - synthetic rubber program.

Resins - Use of furfural in manufacturing of pale resins.

Disinfectants - Many smaller but important uses have been found in the biological field in which antiseptic properties of furfural are applied in various disinfectants, fungicides, and bactericides.

Auto parts - Manufacturers of friction elements, brake linings and electrical insulating units such as fine alarm switches, spindles, meter parts, snap switches, and terminal blocks, find that a little furfural in the resin mix improves the part.

- Cigars Used by cigar manufacturers as a conditioner for tobacco leaves.

  Patent issued for an antioxident in foodstuffs.
- Treat posts The extreme rapidity with which furfural penetrates wood produces a good means for the impregnation of wood piling, by a powerful toxic agent. Process is well adapted to treatment of posts in place as in foundation of buildings.
- Bread Occurs naturally in bread, coffee, beer, and patable spirits and contributes to flavor. Cognac owes its distinctive taste to furfural.
- Roads Preparation of bitumen-mixtures for road building. With a small amount of furfural, the asphalt topping sticks to the gravel and rock bed longer and gives better service.
- Leather In tanning. Keeps the soaks sweet, and destroys the foul odor.
- Nylons Manufacturing of nylon for hose, etc.
- Miracle drugs Recently, from furfural has been made an agent most successful in medical cases where sulfonamides and antibiotics have been successful.
- Other uses In fly repellent, rat poisons, perfumes, silvering mirrors, antifriction coatings for airplane wings, plastics, cement for light bulbs.

The Frogressive Farmer, April 1950, p. 66.

#### SYNTHETIC DETERGENT: PRODUCTION LIKELY TO SET NEW RECORD IN 1950

According to Daniel H. Terry, Technical Service Manager, Antara Products, General Aniline and Film Corporation, the synthetic detergent production in 1950 is expected to be nearly a billion pounds as compared with 800 million pounds last year. He states that there is broad interest in the future competition between soap and the synthetics. Soap, of course, has the price advantage with a cost of about 11 cents a pound, while synthetics range from as low as 18 cents, in the case of some alkyl aryl sulfonates made from petroleum, up to a dollar a pound for certain high grade alcohol sulfates. According to Mr. Terry, a factor of great importance to the whole soap and synthetic detergent industry would be the development of a first-rate synthetic detergent made from fats instead of from petroleum bases.

Journal of Commerce, April 10, 1950, p. 13.

#### SYNTHETIC PYRETHRIN: PYRESYN NOW IN COMMERCIAL PRODUCTION

S. B. Penick & Co. has announced the commercial production of Pyresyn, a synthetic pyrethrin first synthesized by L. B. LaForge and associates at the Bureau of Entomology and Plant Quarantine. The name "allethrin," suggested by S. A. Rohwer, has been released as applicable to the substantially pure chemical synthesized last year. The complete chemical name is the DL-2-allyl-4-hydroxy-3-methyl-2-cyclopentene-l-one ester of DL-cis-trans chrysanthemum monocarboxylic acid.

Pyresyn has been approved by the Food and Drug Administration and the Dept. of Agriculture for use in the formulation of household and livestock sprays. Approval for its use in aerosols is expected shortly. Experimental lots of 100 percent Pyresyn will be sold for a limited time. Drug lots are also available. Other formulations include 20, 10, and 2 percent solutions. According to the manufacturers, Pyresyn solutions show less physical and chemical change than natural pyrethrins, have less insoluble material, and better residual effect.

Chemical and Engineering News, April 10,1950,p.1234.

#### USDA CHEMISTS DISCOVER EIGHT NEW ANTIBIOTICS

Research chemists of the Agriculture Department have discovered eight new antibiotics in cabbages, sweetpotatoes and bananas, it has been reported. Tests are being conducted by the biologically active compounds division of the Bureau of Agricultural and Industrial Chemistry to discover their antibacterial and antifungal potentiality. A pure crystalline antifungal agent has already been isolated from the dried leaves of cabbages. A wilt-resistant variety of sweetpotatoes yields an extract which combats wilt-causing fungi in tomatoes. The effect on wilt in other plants is being studied.

Investigations show that banana skins and pulp are the best source of antifungal and antibacterial agents. Extracts of chemicals which are produced during ripening are of a very high potency.

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Journal of Commerce, April 4, 1950.